



**State Water Implementation
Fund for Texas**

Abridged Application

Due by midnight on February 1, 2022

Submit via Email: SWIFT@twdb.texas.gov

Apply Online: <https://ola.twdb.texas.gov>

By submitting this abridged application, you understand and confirm that the information provided is true and correct to the best of your knowledge and further understand that the failure to submit a complete abridged application by the stated deadlines, or to respond in a timely manner to additional requests for information, may result in the withdrawal of the abridged application without review.

GENERAL INFORMATION

| Entity Name | County | Regional Water Planning Area |
|---|--------|------------------------------|
| City of Dallas – Dallas Water Utilities | Dallas | C - Region C |

| Contact Who should TWDB contact with questions during the review of this submission? | Name | Matthew Penk, P.E. |
|---|-------|---------------------------------|
| | Title | Assistant Director |
| | Phone | 214-671-9560 |
| | Email | matthew.penk@dallascityhall.com |

PROJECT DESCRIPTION

| | | |
|--|---|---------|
| Project Name As it appears in the 2022 State Water Plan | Southwest Pipeline – Phase 1 Infrastructure to Treat & Deliver to Customers | |
| Where can the project be found in the 2021 Regional Water Plan? TWDB Staff will utilize information from both the State and Regional water plans to identify and review the project. | The project is described on page #: | 5D - 7 |
| | The capital cost is listed on page #: | 5D - 10 |
| Phase(s) Applied For | <input type="checkbox"/> Planning <input type="checkbox"/> Acquisition <input type="checkbox"/> Design <input checked="" type="checkbox"/> Construction | |
| Population Served When Fully Operational | 1,736,651 (Based on US 2020 Census), see Page 5 for details) | |

DESCRIPTION OF PROPOSED PROJECT COMPONENTS

Please be sure this description includes all major project components and clearly states what the project seeks to accomplish. A high level of detail is not necessary at this stage—such information is collected later in the application process—but the description should make clear that the proposed work is the same as identified in the regional water plan.

Overall Project Description

Dallas Water Utilities (DWU) is planning to build approximately 32 miles of 120/96-inch diameter treated water transmission pipeline along southern Dallas County. The Southwest Pipeline project (Project) will transfer treated water from the East Side Water Treatment Plant (ESWTP) located in Sunnyvale, Texas through the southern portion of the DWU service area to the Summit Ground Storage Tanks (GSTs) located in Cedar Hill, refer to **Attachment A**. The alignment crosses through the cities of Cedar Hill, Duncanville, Lancaster, and DeSoto in the west and Hutchins, Balch Springs, Mesquite, and Sunnyvale in the east. The alignment also crosses through the City of Dallas in several areas. The need for this project was triggered by the results of the Water Capital Infrastructure Assessment and Hydraulic Modeling Study finalized by DWU in 2007 (Project No. 02-057E) to meet future demands and provide redundancy to the existing system. The proposed alignment shown in Attachment A was recommended based on an alignment study conducted by DWU to evaluate several routes along southern Dallas County and used multiple criteria to select the recommended alignment. In addition to DWU's customers within the City of Dallas, the proposed project will serve multiple customer cities/communities outside of Dallas as shown in **Page 5** of this form.

Along with providing additional capacity for projected water demands in the southern DWU service area, the proposed project presents an opportunity for DWU to improve the overall delivery system reliability and resiliency to maintain service to DWU customers. At the present time, no redundancy of independent pumping capacity exists at certain pump stations in the existing supply pipeline, specifically the Jim Miller PS, Lake June PS, Southcliff PS, and Sorcey Road PS. If any of these pump stations were to go down for an extended period of time, the shutdown would likely result in at least a temporary service shortage to DWU customers.

Existing sections of the pipeline providing drinking water to the southern DWU service area are, in many cases, in advanced stages of their service lives. As pipelines age, they require increasing maintenance and have an increased potential for failures and/or leaks. The existing supply pipeline is composed of 90-inch to 72-inch pipe from the ESWTP to the Southcliff pump station (PS) that are roughly 55 years old, while the remaining existing sections of the pipeline is composed of 66-inch to 54-inch pipe from the Southcliff PS to the Sorcey PS that are about 35 years old. There is no redundancy to the existing pipeline feeding DWU customers in southern Dallas County. Due to the ongoing population growth and the resulting increase in demand in the southern DWU service area, the existing pipeline is currently operating at or near its capacity. The forecasted water demands cannot be met with only the existing pipeline system.

The proposed project will be constructed in phases. DWU already constructed approximately 3 miles of the proposed 96-in pipeline in conjunction with roadway projects.

Funding Request for Critical Phase I Segment of Southwest Pipeline

In 2021, DWU finalized a Water Delivery Comprehensive System Assessment and Update project. The study has determined the need to advance the Phase I Segment of Southwest Pipeline project shown in **Attachment B** is critical and needs to be prioritized. The funding request is to cover the construction cost of this section of the project.

Phase I Segment Components:

- 1) Construct approximately 6 miles of 96-in transmission main along Old Hickory Trail from Daniieldale Road to Wintergreen Road and west along Wintergreen Road to Sorcey PS.
- 2) Construct valve vault with a Pressure Reducing Valve (PRV) on the proposed 96-in pipeline along Old Hickory Trail
- 3) Connect to the existing 66-in pipeline on Daniieldale Road to Sorcey Reservoir and to Summit Ground Storage Tanks

Most of the property rights for this segment have been acquired except for one mile of the pipeline where an agreement with Oncor is currently being negotiated and expected to be executed by DWU and Oncor in 2022. The alignment within Oncor ROW has been approved by Oncor.

Project Triggers: Meet TCEQ Regulatory/performance requirement, operational benefit, increased flow, and improvement to the overall system resiliency

Phase I Segment Justification:

- 1) Provide the required supply/capacity for the increased Sorcey Customer City pumping capacity
- 2) Reduce high pressures exceeding DWU performance criteria in the South High Pressure Plane
- 3) Reduce high velocities exceeding DWU performance criteria in the Southcliff to Sorcey transmission main
- 4) Improve cycling of the American Way Elevated Storage Tank and the Sorcey reservoir
- 5) Provide redundancy and improve overall system resiliency and reliability for the 35 year old existing 66-in to 54-in Prestressed Concrete Cylinder Pipe (PCCP) along Daniieldale Road

Impacts of Not Completing Phase I Segment on time:

- 1) Insufficient supply for the Sorcey customer city pumping capacity
- 2) Pressures and velocities that exceed DWU performance criteria
- 3) Inability to meet South High and customer cities demands if the existing pipeline along Daniieldale is out of service

Emergency

Select all that apply

- Applicant/entity's water supply will last less than 180 days.
- Applicant has received or applied for Federal emergency funding.
- None of the above.

Agricultural Efficiency Project?

| | | |
|--|----------------------------------|------------------------------------|
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| If "Yes," agricultural efficiency improvement achieved by implementing the project: Please provide an attachment showing the basis for your calculation. | <input type="checkbox"/> <1% | <input type="checkbox"/> 10%-13.9% |
| | <input type="checkbox"/> 1%-1.9% | <input type="checkbox"/> 14%-17.9% |
| | <input type="checkbox"/> 2%-5.9% | <input type="checkbox"/> ≥18% |
| | <input type="checkbox"/> 6%-9.9% | |
| | | |

Household Cost Factor

Household Cost Factor calculated by dividing the service area's average residential water bill by its annual median household income. For regional projects, these should represent the combined service areas of all participating entities.

| | | | |
|---|----------|--|-------------|
| Estimated average annual residential water bill: | \$120.00 | Annual Median Household Income: | \$34,479.00 |
|---|----------|--|-------------|

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|--|---------------------------------------|-------------------------------------|---|
| The proposed project addresses: | <input type="checkbox"/> Conservation | <input type="checkbox"/> Water Loss | <input checked="" type="checkbox"/> N/A |
|--|---------------------------------------|-------------------------------------|---|

Volume of Water Produced/Conserved (in Acre/Feet per Year)

Please provide the total water supply project yield of the entire project on an annual basis in acre-feet per year, for each planning decade. A water volume in the 2040 decade, for example, is assumed to come online in or prior to the year 2040 but is a snapshot annual volume for that decade; it is not a sum of the annual use in the decade.

| 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|---------|---------|---------|---------|---------|---------|
| 275,297 | 292,402 | 326,909 | 361,492 | 389,250 | 402,811 |

| | |
|--|---|
| Readiness to Proceed Select all that apply | <input checked="" type="checkbox"/> Preliminary planning or design work (30% of total project) has been completed or is not required. <input checked="" type="checkbox"/> Applicant is prepared to begin implementation or construction within 18 months of application deadline. <input checked="" type="checkbox"/> Applicant has acquired all water rights associated with the proposed project, or none will be required. |
|--|---|

ESTIMATED COSTS

| | |
|--------------------------------------|-------------------------|
| Low-interest Loan | \$ 73,300,000.00 |
| Deferred Loan | \$ |
| Board Participation | \$ |
| Local Contribution | \$ |
| Other: | \$ |
| Total Estimated Project Costs | \$ 73,300,000.00 |

| | | |
|---|---|---|
| Anticipated Commitments Please attach proposed schedule for multi-year commitments. | <input checked="" type="checkbox"/> One-Time Commitment | <input type="checkbox"/> Multi-Year Commitments |
|---|---|---|

| | | |
|--|---|--|
| Anticipated Debt Service Structure Please attach explanation if requesting non-level debt service. | <input checked="" type="checkbox"/> Level | <input type="checkbox"/> Other Request |
|--|---|--|

LIST OF WATER SYSTEMS SERVED BY THE PROPOSED PROJECT

| NAME | PWS ID |
|--|-----------|
| Dallas (US Census 2020 Population: 1,304,379) | TX0570004 |
| Cedar Hill (US Census 2020 Population: 49,148) | TX0570036 |

ATTACHMENTS CHECKLIST

- Methodology for determining agricultural conservation savings (if applicable)
- Proposed multi-year commitment schedule (if applicable)
- Proposed debt service structure (if applicable)

SUBMITTAL

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|---------------------------------|--|
| Instructions | To submit your Abridged Application via email, please send this form to SWIFT@twdb.texas.gov . |
| | To submit your Abridged Application using TWDB's Online Loan Application tool, please visit https://ola.twdb.texas.gov . |
| TWDB Contact Information | If you would like to schedule a meeting to discuss your project with TWDB staff, please contact the Regional Project Development Team for your region: http://www.twdb.texas.gov/financial/programs/swift/regional_project_teams.asp . |
| | For general SWIFT program inquiries, please email SWIFT@twdb.texas.gov . |